CLAIMS

What is claimed is:

1   1. A method for allowing long term, update and edit control in a database system, the

2   method comprising:

3   providing library control functions in a database system; and

4   utilizing the library control functions via structured query language statements to

5   ensure data integrity of opaque data types in the database system.

           2. The method of claim 1 wherein providing library control functions further comprises

providing a checkout function.

           3. The method of claim 2 wherein providing library control functions further comprises

creating a set of update and delete triggers in correspondence with the checkout function.

1   4. The method of claim 3 wherein providing library control functions further comprises

2   creating a set of side control tables for each selected table that contains library-controlled

3   columns.

1   5. The method of claim 4 wherein utilizing the library control functions further

2   comprises utilizing the set of side control tables to designate a primary key based on a user

3   identity and column name of data being accessed by a user.

1   6. The method of claim 5 further comprising utilizing the primary key as an edit control

2   mechanism for a checked-out cell until an update occurs by the user.

1   7. The method of claim 3 wherein utilizing the library control functions further

2   comprises utilizing the library control functions to control access to a workflow document.

1   8. The method of claim 7 wherein the workflow document further comprises a

2   decomposed XML document.

9. The method of claim 8 wherein the decomposed XML document further comprises an

XML workflow document received via electronic mail.

10. The method of claim 9 wherein the set of update and delete triggers streamline

performance of each workflow step from the decomposed workflow document.

1   11.   A system for allowing long term, update and edit control in a database system, the

2   system comprising:

3   at least one computer processing device; and

4   a database management system installed on the at least one computer processing

5   device, the database management system supporting utilization of library control functions via

6   structured query language statements to ensure data integrity of opaque data types in the database

7   system.

1   12. The system of claim 11 wherein the database management system further supports

2   utilization of library control functions that include a checkout function.

1   13. The system of claim 12 wherein the database management system further supports

2   creation of a set of update and delete triggers in correspondence with the checkout function.

1   14. The system of claim 13 wherein the database management system further supports

2   creation of a set of side control tables for each selected table that contains library-controlled

3   columns.

1   15. The system of claim 14 wherein the database management system further supports

2   utilizing the library control functions through utilizing the set of side control tables to designate a

3   primary key based on a user identity and column name of data being accessed by a user.

1   16. The system of claim 15 wherein the database management system further supports

2   utilizing the primary key as an edit control mechanism for a checked-out cell until an update

3   occurs by the user.

1   17. The system of claim 13 wherein the database management system further supports

2   utilizing the library control functions to control access to a workflow document.

1   18. The system of claim 17 wherein the workflow document further comprises a

2   decomposed XML document.

1   19. The system of claim 18 wherein the decomposed XML document further comprises

2   an XML workflow document received via electronic mail.

1   20. The system of claim 19 wherein the set of update and delete triggers streamline

2   performance of each workflow step from the decomposed workflow document.

1   21.   A computer readable medium containing program instructions for allowing long

2   term, update and edit control in a database system, the program instructions comprising:

3   providing library control functions in a database system; and

4   utilizing the library control functions via structured query language statements to

5   ensure data integrity of opaque data types in the database system.

1   22. The computer readable medium of claim 21 wherein providing library control

2   functions further comprises providing a checkout function and creating a set of update and delete

3   triggers in correspondence with the checkout function.

1   23. The computer readable medium of claim 22 wherein providing library control

2   functions further comprises creating a set of side control tables for each selected table that

3   contains library-controlled columns.

24. The computer readable medium of claim 23 wherein utilizing the library control functions further comprises utilizing the set of side control tables to designate a primary key based on a user identity and column name of data being accessed by a user.

25. The computer readable medium of claim24 further comprising utilizing the primary key as an edit control mechanism for a checked-out cell until an update occurs by the user.

26. The computer readable medium of claim 22 wherein utilizing the library control functions further comprises utilizing the library control functions to control access to a workflow document.

27. The computer readable medium of claim 26 wherein the workflow document further comprises a decomposed XML document.

28. The computer readable medium of claim 27 wherein the decomposed XML document further comprises an XML workflow document received via electronic mail.

29. The computer readable medium of Claim 28 wherein the set of update and delete triggers streamline performance of each workflow step from the decomposed workflow document.